JAN. VOL.8 — 1977 No.2

San Antonio Radio Club

BULL-ETIN

President	Jim Wright	K5CDT	Meets first and third Fridays at 7:30
Vice Pres.	George James	WB5LDN	PM at the Red Cross Bldg.,90 Brees St.
Secretary	Larry Hunlicek	WA5PAF	All who have an interest in amateur
Treasurer	Wayne Wyatt	WB5QBV	radio are cordially invited to attend.
Sgt-at-Arms	Paul Kane	K5PRV	

Bull-etin Editor Dean Davis W5BGE
Assistant Editor Maybelle Davis
Circulation Manager Bob Via WB5FDT

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Letters to editor should be addressed - 1518 Santa Anna, San Antonio, Tx. 78201.

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WRIGHT WORD

By K5CDT Jim Wright

The big event in January each year is the annual Simulated Emergency Test ("SET") sponsored by the American Radio Relay League. In San Antonio, the SET exercise will occur on Saturday, January 29, 1977. Complete information appears elsewhere in this issue. For those of us, including your club's president, who infrequently originate or handle formal message traffic, SET provides the opportunity to learn through participation. Each and every amateur radio operator from Novice to Extra is urged to participate. When the next real emergency occurs, will you know what to do or how to do it?

All of us were saddened by the sudden passage on November 30, 1976 of our treasurer Bob Baldwin WB5MCJ into the ranks of Silent Keys. Bob's enthusiastic support of amateur radio and the San Antonio Radio Club is greatly missed.

In accordance with the club's constitution, on January 7, 1977, Chairman of the Board, Bill Way WA5QUG appointed Wayne Wyatt WB5QBV to fill out the unexpired term of treasurer. This appointment was made with the unanimous support of your Board of Directors. Please give Wayne your full support and assistance. Special recognition goes to Frank Box WA5VFM who had served us faithfully for eight years as treasurer, for stepping in to serve in the interim.

73, Jim Wright K5CDT.

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S A R C U P C O M I N G P R O G R A M S

JAN. 21--Newcomers' Night. Round up friends who are interested in becoming an Amateur. Two films--The Hams' Wide World, and Tune In The World--will be shown. Come early if you want a chair.

FEB. 18--Mini Swap Fest and Auction. Start cleaning out those garages and closets and polish your junk up for this occasion. Don't forget the night!

The Annual Old Timers Night has been set for the 22nd of April--so make your plans to attend this gala affair.

de George WB5LDN.

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Nippon Electric has introduced a new PLL frequency-synthesizer chip to Japanese radio manufacturers. The tiny C/MOS device incorporates oscillator, divider, phase detector, filter and converter circuits to permit 40-channel CB transceivers using only one crystal for a-m and two crystals for ssb transmission and reception. This chip, and others like it--available in the United States--should lead to some very interesting Amateur experimentation. de HR REPORT

Technical Topics

By W5LFN Cal Graf

On top of ole Smokie--The first meeting of the year of the San Antonio Radio Club really started out big with standing room only crowd. And there were a lot of the young timers and the old timers, and that's what it takes to keep a good club going. Many of the visitors who were there reported the same thing--they were novices but were tired of the antics on the CB channels. They were tired of "Smokie reports" and "wall-to-wall parking lots" and wanted to get into something that would hold their interest, and that is certainly amateur radio. As Star Trek would say, "Amateur Radio--the final frontier!"

A Sound Theory--Amateurs might or might not agree with the findings as reported in a recent TIME article (6 Dec 76) about voice recognition. A study made at the West Virginia University included listening to audio tapes. There were 40 men and women who listened to 30 speakers on the tapes. They tried to estimate the height and weight of each of the 30 speakers. The estimates were surprisingly accurate, as on the average, the volunteer students came within 3½ lbs. and 1 inch of picking the weight and height of the speakers--much closer than a random guess. A general finding is that there are adeauate perceptual clues in the voice, which reflect, to some extent, the physical features of height and weight. The article concludes--"Hello, officer, I'd like to report an anonymous obscene phone call from a man who is 5 ft. 9 in., 168½ lbs...." I tried it with Bill Way W5QHG before I met him and I thought he was 4 ft. 9 in. and weighed 250 lbs.

Ball Point Pen--We tend to think that many recent things around us are really recent developments but we are just not keeping behind in the times. Remember how the ball-point pen took the nation by storm in the late 1940's or early '50's? It was invented in 1888 by a man named Loud (he wasn't an Amateur), only four years after Mr. Waterman invented the fountain pen (water - fountain, that's why it's called that?). And don't forget that the zipper is now 85 years old and color photography 84, and that Birdseye invented quick freeze food back in ought and 24.

All in the Family--The last meeting of SARC was interesting in more ways than two--for the first time in many years, Dean Davis W5BGE forgot to announce the date of the SARC Christmas Party on December 3, 1977 (make your reservations now!) and I met Clay Laster's mirror image for he introduced me to a gentleman named Cray Lester After knowing Clay for over 20 years, that's hard to believe. Next I'll be meeting a JA named Cray Raster and <u>that</u> I'll believe. I had sort of given up on name calling after saying that radar spelled backwards was radar and that radar spelled sideways was dardar. Then one day I met a fellow at church named Dardar but I couldn't tell him the joke.

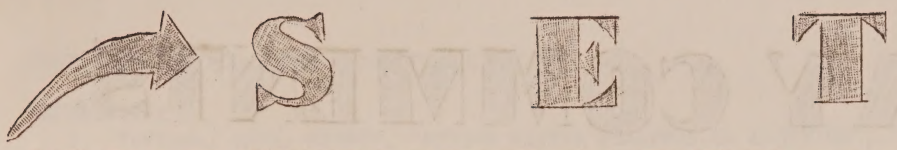
Digital Expression--With digital watches coming more and more on the scene, the expression "clockwise" or "counter-clockwise" may begin to lose their meaning. Instead, we may begin to say "scroll left", or "scroll right", or "advance backward". Things will be "jerky as a digit (smooth as a clock) but what would happen to the movie "Twelve O'clock High"? Perhaps one would say, "A face that would blow the fuse in my digital".

Signing 30 -------- --With great rejoicing I learned that Dean W5BGE was rejoicing great. He is retiring at the end of January '77 after 30 years time with The San Antonio Light newspaper. Dean is signing 30 after 30 years and explained to me what 30 meant in the old newspaper jargon. In years gone by, when a news article was completed, it was followed by 30 ems (about a one inch dash) of line depending on the size of the type. This 30 ems of line actually appear in the paper received at home, not just in the paper printing or typesetting business. "Now", says Dean, "we use white space, or so many nothings". The space you can see in the paper today

Dean has been in the newspaper business since 1932 and he worked on newspapers in 33 different states (probably printing QSL's for WAS in the good ole days!)
And you may not have known it, but you have seen Dean's work many times because for 30 years he put together the <u>Front</u> page of the SA Light (he didn't make the news, he just put it together!)

Dean, Editor of the SARC Bull-etin, and his wife Maybelle, assistant Editor of the Bull-etin, will be seen working that eye-ball contact DX as they plan to tour the states in the new travel trailer they have bought. We all wish them well, and they are both to be thanked an awful lot for the fine, devoted work they both have done for the Club and the SARC Bull-etin, I know I'll miss their cheery smiles, and so with a small tear in the eye, I'll sign 30----------Good luck and regards,

Cal Graf, W5LFM.



South Texas got off easy last year weatherwise. We didn't have an actual Big "E" this hurricane season to keep our local operators sharp. So we need the Simulated Emergency Test all the more this year. This year, in addition to the use of W5SC at Red Cross, stations in each section of the city will be designated as control points. You can readily see that such an operation will need many operators. Here is your opportunity to practice for a real emergency! All amateurs in the SA area are invited to participate. Please let me know your intention. Would like to see you at Red Cross Headquarters by 2 p.m. Saturday, Jan. 29, and give W5SC help at one of its several areas.

The frequencies that will be used are 7290 kHz, 3961 kHz and 2 meters. Each one who checks in with W5SC is expected to originate at least two SET messages: one to his Section Emergency Coordinator S. Tex. indicating that he or she is taking part in the exercise, and one to a friend in his section or region. The Simulated Emergency Test affords us an opportunity to review our message drafting and handling techniques. Preface all SET messages precedences with the word TEST. For detailed info see page 82 December QST.

SAMPLE MESSAGE: Message number_____ Test Routine HXB Check 6

San Antonio, Tex. 1830Z (or the time you file in GMT) Jan. 29

To: Ken Hazel W5TQP, SEC S. TX, Portland, Tx.

Test message am active in SET

Signed (your name and call letters)

NOTE: HXB means--Cancel message if not delivered within the SET period; service (send a service message to) originating station.

If you are not an AREC member, please see me for application blank. We get extra points for each amateur who participates if he is a member. If you are able to check in with emergency power please indicate so.

73, Ivan Mangold WA5RNV.

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K2VN is a novice call issued to Chester Charles, 78, of Sea Girt, New Jersey, who held 2VN back in 1914. Since WN calls no longer exist, he is eligible for this first Novice IX2 call. de HR REPORT.

T R A D E W I T H "T E X T H E T R A D E R"

NATIONAL NCX5 MKII, NCX 501 VFO, NCX5A, pwr supply/speaker, mike, recondition-ed, checked out, perfect--$450.
NATIONAL NCX3 xcvr without pwr supply--$149.
TECH MATERIAL Receiver (.54 to 31.5 mHz.) GRP 90 RX with CV 591 A/URR--$295.
COLLINS KWM2 (late) --$729.
COLLINS 516F--2 AC supply--$129.
COLLINS MP--1 DC supply--$124.50
KWM 1--complete with AC pwr supply & factory noise blankers, mike/speaker $375.
NJE 12 volt, 30 amp, regulated power supply in stock--Call for deal.
Dual 25 amp, 12 volt, retulated power surply, $100.
FT 221 2 M transceiver in stock.
FT 101 E - EE-EX in stock
FT 101 S, FR 101 D, FL 101 in stock.
FT 224 and 200 Signasizer in stock.
KLM 10--160 BL linears in stock.
CUSHCRAFT AND KLM 2 M and 450 mHz. beams in stock.

T R A D E
W I T H
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O S C A R 7 -- KLM Echo 70 in stock --- O S C A R 7

WE SERVICE WHAT WE SELL----- WE WILL TRADE ----- CALL US FOR YOUR NEEDS!
C A L L: Tex W5QDB Woody WB5DFQ Gene WA5CBT
KENNEDY ASSOCIATES 2618 Rigsby San Antonio, TX 78222 (512) 333-6110

CLAY COMMENTS

OP-AMPS AS ACTIVE FILTERS FOR IMPROVED CW RECEPTION

By W5ZPV Clay Laster

The availability of inexpensive operational amplifier integrated circuit chips, such as the 741 and the 709, has prompted the development of active filters for many applications in Amateur radio. One of these applications which has appeared in many Amateur journals is that of active filters featuring sharp selectivity for CW reception. Prior fabrication of audio filters for this purpose normally required large expensive inductors and capacitors. Today, a sharp audio band-pass filter can be assembled as an evening project and can be tucked inside the receiver's speaker cabinet for about $10 to $15, depending on the assets in your junk box. Locally, the 709 OP-Amp is about six-bits and the 741 is about $1. The 741 is the preferred Op-Amp since it has an internal frequency compensation network and does not require external circuitry for this purpose.

The basic operational amplifier circuit is given in Figure 1. Most Op-Amps, such as the 741, have two inputs--inverting and non-inverting, one output, and two power supply connections. Dual power supplies, providing $\pm$ 5 volts to $\pm$ 18 volts are required for the normal Op-Amp circuit. Input impedance for the two inputs is extremely high, on the order of megohms. The output impedance is very low, about 1000 ohms or less for practical circuits. The gain of the Op-Amp is dependent on the ratio of the feed-back resistor, R_F, to the input resistor, R_{IN}, (or R_F/R_{IN}), and can be adjusted to 20 to 40 DB for practical circuits.

If R_F is replaced by a frequency dependent network, such as an R-C circuit, then the gain of the Op-Amp will be frequency dependent. One practical circuit, verified by WB6ZCT, is given in Figure 2. This circuit is a band-pass active filter which peaks at about 750 Hz and uses the 741 Op-Amp. Thus, at 750 Hz, the impedance of the feed-back network is a maximum and allows maximum amplification of the input signal. The output of the stage is adequate to drive headphones (600 ohms). If speaker output is required, a second 741 Op-Amp configured as an audio amplifier or an output audio module (WB6ZCT recommends the Radio Shack 276-016 Audio Module) may be used to drive the speaker.

A commercial quality active CW filter is available from MJF Enterprises (designated the CWF-2BX CW Filter) for about $28. Ed WB5TOW is the proud owner of this type of CW filter and reports that it has improved his CW reception. Additional information on active filters may be found in the attached list of references.

(Continued on Page 5)

MADISON ELECTRONICS SUPPLY
HOUSTON, TEXAS 77002

1508 McKinney Ave.
(713) 658-0268

HOT SPECIALS FOR JANUARY-CALL FOR QUOTES ON TS700A(NEW LIST 599);TS520 PLUS MOST ACCESSORIES IN STOCK, ALSO TS820, 30 DAY DELIVERY.

NEW ATLAS 350-XL FIRST OF FEBRUARY, PLUS ACCESSORIES IN STOCK.
HAM-2 ROTOR 129.00, CD44 104.00 PLUS CABLE 14¢/FT; AR22XL 50.00;
CALLBOOKS, HANDBOOKS, LICENSE MANUALS, MANY TECHNICAL BOOKS IN STOCK, CALL OR WRITE NEEDS.
TEMPO 2020 IN STOCK 759.00 WITH CW FILTER MICROPHONE, DIGITAL

WE CAN SHIP FAST BY BUS OR P.P. OR TEXPAC, SIMPLY CALL AND USE BAC OR MASTER-CHARGE OR MAIL CHECK.

DENTRON AMPLIFIERS (FOUR EA.) 572B, 574.95. KENWOOD TR7400A 399.00; DISCOUNT AVAILABLE.

HYGAIN 18AVT/WB PLUS 100 FT RG8/UCOAX 100.00; CALL FOR QUOTES ON ITEMS NOT AVAILABLE, TEXAS RESIDENTS ADD5% TAX, PRICES FOB HOU. SUBJECT TO CHANGE WITHOUT NOTICE.

MAX W5GJ BOB WA5UUK MARY W5MBB DAVE WA5ZNY DON K5AAD

S O O N - DEALERS FOR YAESU

CLAY COMMENTS (Continued from Page 4)

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1. Portune, John, WB6ZCT, "ACTIVE FILTER SHARPENS CW RECPTION", Popular Electronics, June 1975.

2. Berlin, Howard M., K3NEZ, "INCREASE FLEXIBILITY FOR MJF CW FILTERS", Ham Radio, December, 1976.

3. Kesner, Don, W7EIJ, "AN INTRODUCTION TO ACTIVE FILTERS", CQ, April, 1975

4. THE RADIO AMATEUR'S HANDBOOK, ARRL, Newington, CO, 1976 , pp 101-103.

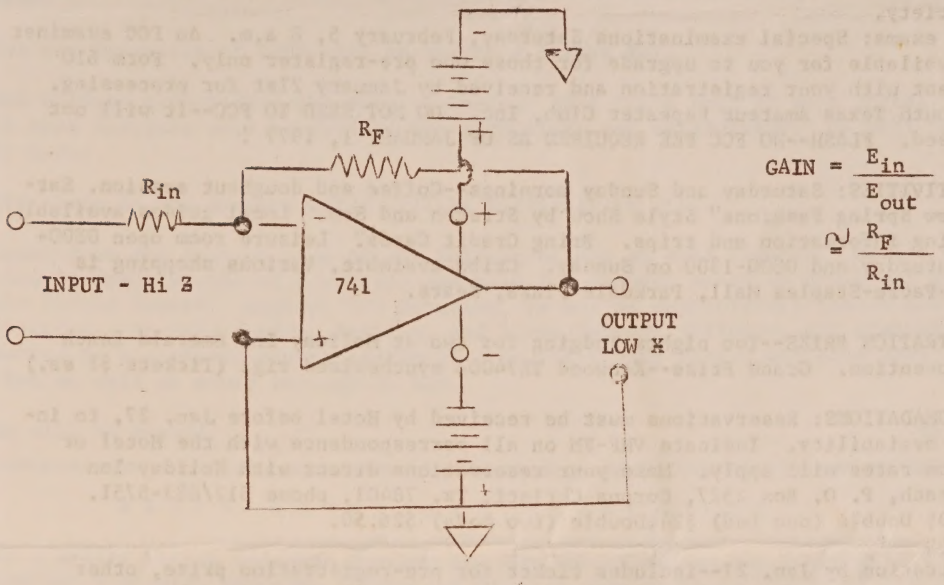

Figure 1. Basic Operational Amplifier - Inverting Configuration.

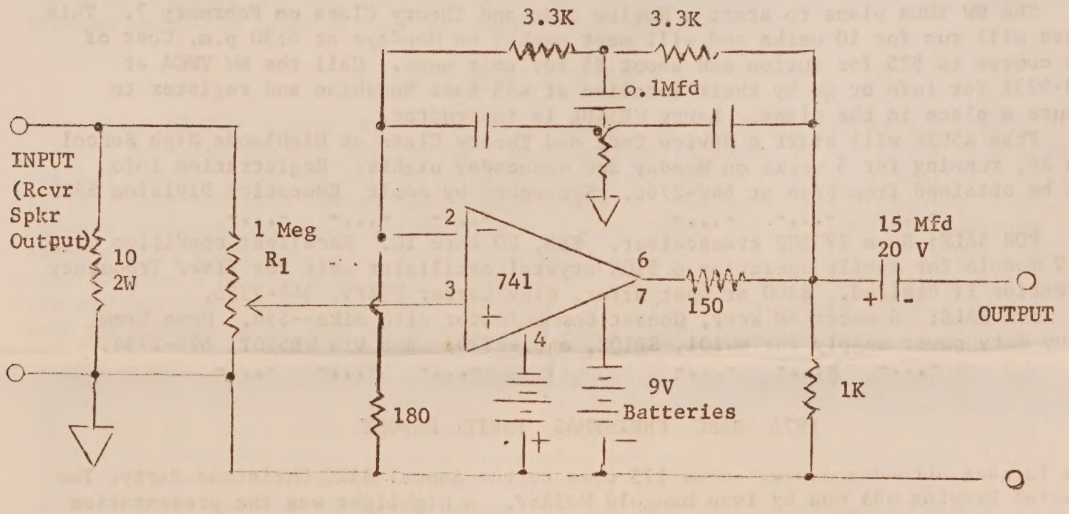

Figure 2. Basic CW Active Filter using 741 Op-Amp in Non-Inverting Configuration.

Notes - Unless noted, all resistors are ½ watt and capacitors are 50 volt rating. 741 Op-Amp is shown for TO-99 Package. In-Line or Plastic Flat-Pack may be used if pin numbers are confirmed.
AC Power Supplies, up to ± 18 volts may be used.

TEXAS VHF-FM SOCIETY WINTER MEETING

The South Texas Amateur Repeater Club, Inc. and the Corpus Christi Amateur Radio Club, Inc. invite all Amateur Radio Operators to attend the Texas VHF-FM Society 1977 Winter Meeting to be held at the Holiday Inn Emerald Beach, Corpus Christi, Texas, February 4-5-6, 1977.

Repeater Frequencies: 34/94 and 22/82 will be available for those arriving Corpus Christi Fri. Feb. 4th. Also 04/64 and 449.2/444.2 will be used.

PROGRAM HIGHLIGHTS: Spectrum Analyzers in Amateur Radio by Cushman Electronics/ Antennas--VHF/UHF--Cause and Effect by Decibel Products/ Voting Systems in Repeater Operation by General Electric/ Microprocessing--Amateur Radio by Southwest Technica Products/FCC Amateur Examinations by FCC-Houston*/ARRL by Roy Albright W5EYB; Doug Brooke K5YHX; Jank Gant W5GM; Lew McCoy W1ICP/Texas Intercity Relay System by Texas VHF-FM Society.

*FCC exams: Special examinations Saturday, February 5, 8 a.m. An FCC examiner will be available for you to upgrade for those who pre-register only. Form 610 MUST be sent with your registration and received by January 21st for processing. Send to South Texas Amateur Repeater Club, Inc. DO NOT SEND TO FCC--it will not be processed. FLASH--NO FCC FEE REQUIRED AS OF JANUARY 1, 1977 !

LADIES ACTIVITIES: Saturday and Sunday mornings--Coffee and doughnut session. Saturday--"New Spring Fashions" Style Show by Stretch and Sew. Local guides available for shopping information and trips. Bring Credit Cards! Leisure room open 0800-1700 on Saturday and 0800-1300 on Sunday. Cribs avaiable. Various shopping is avaiable--Padre-Staples Mall, Parkdale Plaza, Sears.

PRE-REGISTRATION PRIZE--Two nights lodging for two at Holiday Inn Emerald Beach during convention. Grand Prize--Kenwood TR7400A synthesized rig. (Tickets $1 ea.)

HOTEL ACCOMADATIONS: Reservations must be received by Hotel before Jan. 27, to insure room avaiability. Indicate VHF-FM on all correspondence with the Hotel or normal room rates will apply. Make your reservations direct with Holiday Inn Emerald Beach, P. O. Box 2527, Corpus Christi, Tx. 78401, phone 512/883-5751. Single $20; Double (one bed) $24;Double (two beds) $26.50.

Pre-registration by Jan. 27--includes ticket for pre-registration prize, other drawings and meeting facilities--$2.50. (Regrestration $3.50 at door.)

Make checks payable and mail to: South Texas Amateur Repeater Club, Inc.,
3911 Carroll Lane, Corpus Christi, Tx. 78411.

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NOVICE CODE AND THEORY CLASSED

The NW YMCA plans to start a Novice Code and Theory Class on February 7. This class will run for 10 weeks and will meet weekly on Mondays at 6:30 p.m. Cost of the course is $25 for tution and about $5 for text book. Call the NW YMCA at 735-9231 for info or go by their location at 435 East Sunshine and register to insure a place in the class. Larry WB5XDL is instructor.

Fran K5GJN will start a Novice Code and Theory Class at Highlands High School Jan 24, running for 6 weeks on Manday and Wednesday nights. Registration info can be obtained from Fran at 649-2766. Sponsored by Adult Education Division SASD

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FOR SALE: Swan 270BHF transceiver. SSB, 80 thru 10. Excellent condition with 12 V module for mobile operation & 510X crystal oscillator unit for fixed frequency operation if desired. $300 or best offer. Clay Laster W5ZPV, 344-7356.

FOR SALE: 6 meter AM xcvr, Gonset Communicator with mike--$54. Home brew heavy duty power supply for HW101, SB102, etc.--$20. Bob Via WB5FDT, 696-2754.

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1976 SARC CHRISTMAS PARTY REPORT

The largest attendance ever--some 175 came to the Annual SARC Christmas Party. The Special Drawing was won by Ivan Mangold WA5RNV. A highlight was the presentation of a plaque to Roy Albright W5EYB for his dedication and service to Amateurs as West Gulf Director. Out-of-town visitors included: Monty Montemayor W5YZ, Houston Ed WB5AMN and Cathy Stoessell, PAM & asst. SCM S. Tx., Houston; Fred K5ONC and Berdie Brown, Houston; Ken Hazel W5TQP; S. Tx. SEC, Portland; Tom WB5NUM and Judy Comstock, College Station; Maurie W5JLW and Maxine Lampl, Uvalde; Doug K5YHX and Michael Brooke, W. Gulf vice Dir., Austin; Pete W5OY and Adela Peterson, Austin.

The 1977 Christmas Dinner Party will be Saturday Dec. 3 at Arden Grove Party House so you can now make your plans to attend--make your reservations early!!

BOB BALDWIN - SILENT KEY

Bob WB5MCJ (Morse Code Jinx) became a Silent Key November 30, 1976. His energy, enthusiasm, determination and empathy will be missed by the San Antonio Radio Club. No new amateur, to my knowledge, had ever taken hold and become an integral part of SARC in such a short time. His work in publicity for Amateur Radio will be long remembered. Because of his endeavors, San Antonio libraries have a complete set of ARRL books on How to Become an Amateur. His program of helping new Novice class Amateurs using a buddy system will be continued. Bob received his Novice license on Field Day two years ago and was on CW immediately and became a traditional part of FD by heading up a crew to serve breakfast to all of those who had spent the night in FD operation.

Bob had worked hard to upgrade to General and had taken the FCC exam several times, finally made it--but his new license was not received until after he had passed away.

Bob was Treasurer of SARC when he became a Silent Key.

Bob Baldwin exemplified the type of Amateur that FCC's Part 97 sets forth! Many SA area Amateurs were touched by his enthusiasm and helpfulness. He will be missed by many.

His place in the Amateur world will be difficult to fill.

Apart from the Amateur side of Bob Baldwin he was an avid Scouter. He had been active in Scouting all of his life, and held the highest award an adult can get -- the Silver Beaver. Besides his Scouting, he was as emphatically family and church oriented. He left a wife, Earline, and three devoted children, one grandchild. He worked in his church almost continually on the theory that a definite part of ones time as well as money belongs to God.

He will be missed. de W5BGE.

F L A S H F R O M A R R L H E A D Q U A R T E R S

In a public notice released January 10, the FCC announced the implementation of an instand upgrading program. Effective March 1, Engineers in charge of the various FCC field offices will be delegated authority to issue interim amateur permits to applicants for amateur operator licenses who successfully complete the examination and who already hold an amateur license. This interim permit will be good for 90 days or until the new license is issued, whichever comes sooner. The interim permit will indicate a special ID which must be appended to the amateur station call whenever the operator utilizes his newly earned privileges. We emphasixe that this instant upgrading program does not take effect until March 1.

F R O M H R R E P O R T

Suspension of FCC license fees went into effect Jan. 1, 1977. It is the result of a court decision and the outcome of a suit brought by cable TV and other interests, who had charged that the FCC's fee structure was arbitrary and thus improper. All applications received and opened through the end of December still required fees. License applications that include fees that came after Jan. 1, will be processed in company with those without. Applicants who sent checks in payment of license fees will receive a notice with their licenses advising them that their checks were destroyed and their check registers whould be corrected accordingly; those who sent cash or a money order will receive a government check in repayment.

Proposed further de-regulation of Amateur Radio has emerged from FCC in form of Docket 21033 which would revise Part 97 of FCC Regulations. The action stems from RM's 2151 (R. May); 2664 (Schlesinger-Kelsey) and 2780 (T-MARC). The Commission said some proposals merit serious discussion and puts forward for comment following revisions of Part 97 to: Permit repeater, auxilary, and remote control of Amateur stations under Primary, Secondary, and Club station licenses, and to continue issuance of separate licenses for such operations; Delete requirement that transmissions of so-called "open" automatically-controlled repeater stations be recorded and recordings be retained for 30-day period and making minor revisions to logging requirements for remotely-controlled stations: Allow Amateur licensees greater flexibility in choice of frequencies for repeater and auxiliary station use. The Commission also invited comments on adequacy or like of current spectrum-management techniques in Amateur Service. Comments are due by April 1, 1977 and reply comments are due by April 15, 1977.

ONE MAN's OPINION

By
ROY L. ALBRIGHT
W5EYB/N5RA

As mentioned on the preceding page, the FCC is proposing major changes in Repeater regulations in order to effect more 'de-regulation'.

It appears we are about to come full circle in regard to rules governing operation of our repeaters - all the way from no rules, to too many unrealistic ones, and now back to what promises to grant relief from many of the current onerous restrictions.

The FCC proposals are contained in Docket 21033, with a release date of 6 January. Our copy arrived just a few days ago, and runs to some 14 pages - far too lengthy to include herein in its entirety. However, in view of the forthcoming (Feb 4,5,6) meeting of the Texas VHF-FM Society in Corpus Christi, we are taking the liberty of extracting and publishing below, those aspects of the docket we think are of greatest interest.

Basically, we feel the Amateur and Citizens Division of FCC is to be congratulated for taking this action. Naturally we have some few mental reservations concerning certain aspects of the proposal; and a few questions remain to be answered. Final date for interested persons to file comments is 31 May, 1977.

Some of you may recall this writer is on record as having been opposed to the unrealistic logging and monitoring requirements for repeaters. We are pleased to see those rules are proposed to be relaxed.

Lest we view these proposals as authorizing totally unrestricted operation of Amateur stations however, we should observe the basic intent contained in the document is to permit us to operate our repeaters (and remote stations) with maximum flexibility consistent with observance of good amateur practice, always under the control of the licensee, and not operation a la CB or HF International.

One point which worries us somewhat is the possible effect implementation of the proposal will have on frequency coordination. To date, only two or three areas of the country have failed to develop a workable frequency coordination system. With the innumerable possibilities for direct frequency conflict, and that old devil known as 'intermod' constantly bugging us, we visualize that problems in this regard are on the horizon.

The subject of frequency allocations for repeaters was touched upon briefly at a recent meeting of the Texas VHF-FM Society. At that meeting, the Society recommended that those areas which are overloaded on 144 proceed to establish repeaters on 220. We considered that to be an excellent recommendation, and is a practice now followed to a great extent in California. With the advanced development of VHF techniques it is not unreasonable to visualize the appearance of a two or three band synthesized FM transceiver in the near future.

Unlimited privilege of repeater operation on any frequency, in any amateur band, as proposed in par. 12 of the docket, conceivably creates a host of problems to a number of other disciplines utilizing those frequencies. We wonder if the Commission really mean what they say in that paragraph!

We welcome the authorization for Technicians to use a portion of 10 meters. But, we question the advisability of repeater operation therein, except possibly in the upper 200 Khz. Most certainly the coming rise in sunspot activity will create havoc with 10 meter repeaters. Most important however, is the fact that 10 is already overloaded with activity during periods when we experience sunspot activity more than the minimum we now see.

We were greatly pleased to note the Commission welcomes recommendations concerning power limitations for repeaters. Historically, all licensed amateurs (except Novices) have been authorized 1000 watts dc input to the final amplifier (that is, until the advent of docket 18803). While the current limits are adequate for many repeaters, there are numerous instances where flexibility in authorized power is most desirable. Too, the power restrictions for six-meter repeaters are absolutely inadequate in many areas, and this has impeded the proliferation of repeaters in that band.

In most cases, the rapidly increasing cost of electric power for continuous duty operation is a self-limiting factor in repeater operation, and will become more of a limitation in the future.

cont'd on page 9.

Well, anyhow, there is much more in the docket. Read it, and if you have comments, let your voice be heard. Remember, these are our frequencies the FCC is playing with; the Commission members don't use them - they merely publish the regulations. And, as the old timers used to say: "The wheel that does the squeeking, is the one that gets the grease".

EXTRACTED COMMENTS FROM DOCKET 21033

" 2. The petitioners in RM-2664 * * * request explicit recognition * * * of so-called "remotely controlled base stations". * * We have also received several comments from interested parties supporting the basic proposals of RM-2664. * * * * * *

4. * * * we are herein proposing revisions of Part 97 of the Rules, which * * * would result in a substantial simplification of the licensing and operation of stations in the Amateur Radio Service presently licensed as repeater stations, control stations, auxiliary link stations, and all other remotely controlled stations, such as remotely controlled base stations. The revisions we are now considering * * * would be a significant step in * * * deregulation of the Amateur Service.

6. Our experience since adoption of * * * Docket 18803 * * * HAS DEMONSTRATED THAT AMATEUR RADIO OPERATORS ARE FULLY CAPABLE (caps ours,ed) of developing and operating complex systems of stations with a minimum of regulation * * *. * * * we propose to delete those provisions of Sections 97.40, 97.41, and 97.43 of the Rules requiring that licensees obtain prior approval * * * * TO OPERATE A REMOTELY CONTROLLED STATION AND REQUIRING THAT REPEATER STATIONS, CONTROL STATIONS, AND AUXILIARY LINK STATIONS BE SEPARATELY LICENSED. (again, caps ours, ed). We would discontinue the issuance of station licenses with "combined" station privileges; all amateur station licenses would convey authority to operate as repeater, control, auxiliary link, and remotely controlled stations now operate. Functions now conducted by repeater stations would be conducted under a form of station operation known as "repeater operation". Functions now conducted by control stations and auxiliary link stations would be combined in a single form of station operation known as "auxiliary operation". * * * * Section 97.3 of the rules would be revised to include new definitions of repeater and auxiliary operation.

7. Similarly, we believe that operators of other remotely controlled stations, such as remotely controlled base stations, have demonstrated the capability of adequately controlling the emissions of such stations, * * * * Accordingly we propose to revise the Rules to permit the portable and mobile operation of all primary, secondary, and club stations when such stations are in repeater or auxiliary operation.

8. * * * * we propose to discontinue our policy of assigning call signs prefixed with the letters "WR". Stations presently assigned such call signs would be permitted to retain them indefinitely. A licensee wishing to engage in repeater operation and wishing to obtain a "WR" call sign would be required to request that prefix. Stations with "WR" call signs would be restricted to repeater operation, however.

9. Because stations in repeater or auxiliary operation would be taking advantage of specialized modes of operation, we believe the transmissions of such stations should be distinctively identified. We propose to require that auxiliary or repeater operations conducted by stations with "traditional" call signs (that is, call signs not prefixed with the letters "WR") be identified by the addition of a distinctive suffix to the station call sign. Stations in repeater operation would be identified by the addition of the suffix "R", "RPT", or the word "repeater" to the regular call sign. Stations in auxiliary operation would be identified by the addition of the suffix "A", "AUX", or the word "auxiliary" to the regular call sign. We also propose to revise the station identification requirement for stations in repeater operation or stations in auxiliary operation automatically relaying the signals of other stations in a system to require identification at intervals of at least ten, rather than five minutes.

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10. * * * RM 2780 seeks relaxation of certain logging requirements and we are considering deletion of the requirement found in Section 97.111(g)(2) of the Rules * * * that open access stations *** under automatic control be either monitored in real time * * * * or recorded and the recordings retained for a period of thirty days. * * * * the licensee would continue to be responsible for its proper operation, and we wish to receive comments addressing the issue of the continued usefulness * * * * of the recording requirement * * * * of "open" automatically controlled repeater stations.

11. We are proposing to revise the present rule that all remotely controlled stations have entered in their logs a list of all authorized controlled points and copies of all control and auxiliary link station licenses, to require entering the names, addresses, and primary call signs of all authorized control operators. * * * * * * revision would be based on the proposition that responsibility * * * should be traceable to specific control operators rather than specific land locations. We also propose to require the posting of a list of authorized control operators at the remotely controlled transmitter site. We are not proposing to delete the requirements that the logs of stations in repeater or auxiliary operation contain certain specialized technical information, however.

12. Additionally, it appears that many Amateur operators seek greater flexibility in the choice of frequencies for repeater and auxiliary operation. * * * we are therefore proposing to permit both repeater and auxiliary operation on all frequencies allocated to the Amateur Radio Service, except 435-438 Mhz, and to delete the requirement that frequencies below 225 Mhz used for auxiliary operation be monitored by the control operator * * * *. We would revise Section 97.63 of the Rules, however, to emphasize * * * * * that a station using a frequency has first priority in such use over other stations, and that all frequencies allocated to the Amateur Service are shared on a non-exclusive basis.

13. The Commission is aware that adoption of the rules proposed herein could result in a significant increase in the number of repeater, remotely controlled stations, and associated activities pursued by amateur licensees. * * * * and that possibility exists that increased interference might result from adoption of these revisions. * * * * we are nonetheless interested in receiving comments concerning present and future anticipated interference patterns, whether present techniques used by amateur operators to limit interference are adequate or could be improved, and whether present levels of voluntary cooperation are sufficient to justify continuation of the existing cooperative system, In this regard, we wish to receive comments concerning the utility of the limitatinns on the effective radiated power of stations in repeater operations contained in Section 97.67 of the Rules. Should such limitations be eliminated in their entirety, modified, or retained without change? What limitations, if any, should be placed on the radiated power of stations in repeater operation on frequencies not currently listed in Section 97.67 of the Rules? "

Well, there you have it. Read it carefully, and if you plan to submit comments we strongly recommend you get a copy and read the entire docket. Although the proposals are basically for repeater rules, a couple of items in it could VERY SERIOUSLY affect the high frequency band operation also.

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